To: cbliley@growthenergy.org[cbliley@growthenergy.org]; tim@sorghumgrowers.com[tim@sorghumgrowers.com]; tom.willis@conestogaenergy.com[tom.willis@conestogaenergy.com]
Cc: Lie, Sharyn[Lie.Sharyn@epa.gov]; Hengst, Benjamin[Hengst.Benjamin@epa.gov]; Camobreco, Vincent[Camobreco.Vincent@epa.gov]
From: Nealer, Rachael
Sent: Tue 4/16/2013 5:34:58 PM
Subject: Follow up to meeting
Questions for Conestoga 4.11.13 Final.docx

Hi Chris, Tim, and Tom,

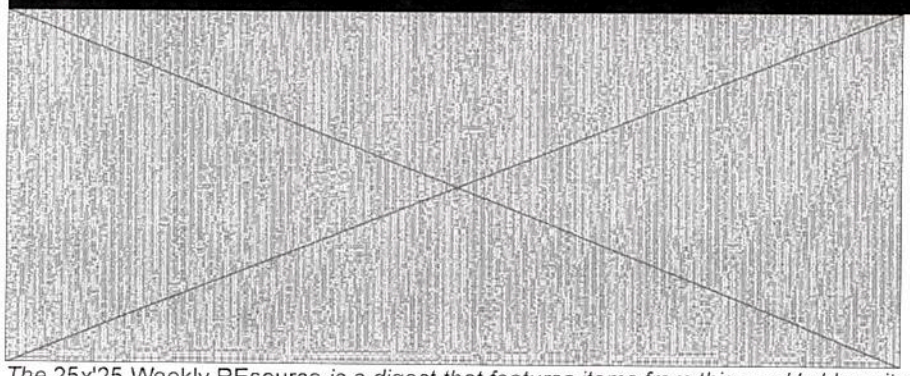
It was good to meet with you on Thursday and catch up on the progress of your projects. Attached are the list of questions we discussed on the topic of EOR with CCS. If you could get back to us on the first and third questions that would be very helpful. We would also like to follow up on your offer to give us your submission to the KCC. Please let us know if we can be of any help, otherwise we look forward to hearing back from you.

Thanks,

Rachael

To: Hengst, Benjamin[Hengst.Benjamin@epa.gov]
From: 25x'25
Sent: Fri 4/26/2013 7:32:05 PM
Subject: Weekly REsource for April 26, 2013

[redacted]



The 25x'25 Weekly REsource *is a digest that features items from this week's blog site, the* 25x'25 REsource*, and other sources. The* 25x'25 REsource *and the* 25x'25 Weekly REsource *complement the role of* 25x'25 *as an objective and trusted source of information on agricultural and forestry renewable energy and climate solutions. Also, visit us at our Facebook page and follow us on Twitter.*

Our Featured Blogs

News of Note

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Upcoming Events

[redacted]

Our Featured Blogs

Farm Bill Energy Programs Help Meet Nation's Energy, Economic Needs

Over the past decade, America's farmers, ranchers and foresters have been at the forefront of innovation, offering their operations as working "laboratories" that have produced new, diverse energy technologies, including advanced biofuels, biogas, bioproducts, biopower, energy crops, wind, solar and energy efficiency. It is through this advancement that the U.S. farm sector has already made significant contributions to the nation's economic recovery and its energy security, as well as enhancing the

News of Note

environment with cleaner energy sources. But the growth in new, clean energy is only just beginning, driven in large part by the energy programs first enacted in the 2002 Farm Bill and renewed again in 2008. Now that Congress is set to begin drafting a new five-year farm bill next month, it is critical that lawmakers maintain the stable and successful policies that can continue the development and commercialization of the groundbreaking technologies that are now poised to expand into a major contributor to our nation's energy needs. Read more...

Advocates Successfully Defend Renewable Portfolio Standard in North Carolina

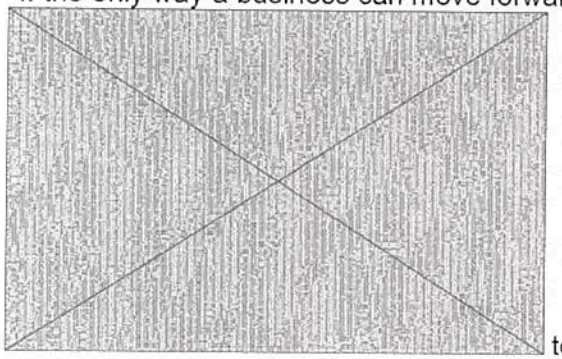
News from various fronts in the ongoing battle to protect state Renewable Portfolio Standards (RPS) was mixed this week, with sustainable energy advocates getting some good news in North Carolina, Minnesota and New York, but sustaining a setback in Florida.

The Energy Pyramid: Building on Energy Efficiency

The following guest blog was authored by Amelia Gulkis, Chief Operating Officer at EnSave, a company that strives to make U.S. agricultural producers more sustainable and profitable through energy savings and resource conservation. The last few years have seen a blossoming of interest in environmental topics within our popular culture as well as a renewed focus on agriculture and how our food is produced. Recent policy actions like the 2009 American Recovery and Reinvestment Act and the pending Farm Bill have also focused the public's attention to energy and agricultural issues. Both topics are of critical importance in the coming decades as we figure out how to reconcile the need to reduce our consumption of non-renewable resources while struggling to feed a growing global population. Read more...

In North Carolina, a measure that would freeze and repeal the state's modest 12.5-percent-by-2012 RPS died in a legislative committee chaired by the measure's sponsor. The bill from Rep. Mike Hager also would have ended subsidies for solar energy, wind energy and other renewables that the legislature adopted in 2007, making the state the first in the Southeast to adopt an RPS.

"If the only way a business can move forward is with a subsidy, then maybe we need



to rethink the business," Hager, a former Duke Energy employee, told his committee members.

But by an 18-13 bipartisan vote, the committee killed the bill, siding with advocates who mounted a strong campaign against repeal, citing the standards role in diversifying the state's energy capabilities, creating jobs and enhancing energy security, all at a relatively low cost.

The action in North Carolina was similar to that seen last month in Kansas, where an

Headlines of Note

effort to repeal it. Delay implementation that state's RPS calling for 20 percent of its energy to come from renewables by 2020 was met with significant pushback from renewable energy advocates and eventually turned back by state legislators.

News of interest to our 25x 25 Partners and advocates for a clean energy future:

- BIO Asks Florida Gov. Scott to Preserve the State's RFS
- DOE Announces New Projects to Develop Advanced Drop-In Biofuels for Military Jets and Ships
- Georgia Power to Acquire 250 Megawatts of Wind Energy From Leading Developer
- Get Your Green on with Biofuels
- Helpful Guidance for Renewable PTC 'Begin Construction' and 'Continuous Efforts'
- IEA Says Global Biofuel Capacity Must Double By 2020
- IMF Reflects Fossil Fuel Subsidies, Calls for Reform
- Murkowski Sees Wider Support for Clean Energy Tax Break
- Nebraska Lawmakers Advance Wind Tax-Incentive Bill
- Solar Energy Is A Way to Go Green
- Wind Energy Rapidly Expanding

Elsewhere this week, legislation that opens up the state's renewable fuel requirement to include biofuels other than ethanol is now in conference committee in the state legislature and likely headed for adoption. The bill resets the tiered petroleum replacement goals for the state, setting the 2015 goal at 14 percent, 18 percent in 2017, 25 percent in 2020 and 30 percent in 2025.

State Rep. Jeanne Poppe issued a statement stating that "in order to continue to be industry leaders, we need to support the growth of emerging biofuels, while protecting the investments we have made in the ethanol industry." She said the measure will "encourage more companies to consider making investments in Minnesota, building on the strong ethanol foundation already in place and driving economic growth and jobs for middle class families."

Upcoming Events

In New York, the state Senate unanimously passed legislation to extend the NY-Sun Initiative through 2023. Advocates say the measure solidifies the state's long-term commitment to solar energy. Business and environmental groups praised the measure, which they say will create thousands of jobs, lower solar costs and increase energy reliability.

Events of interest to 25x 25 partners and other renewable energy stakeholders can be found by clicking here.

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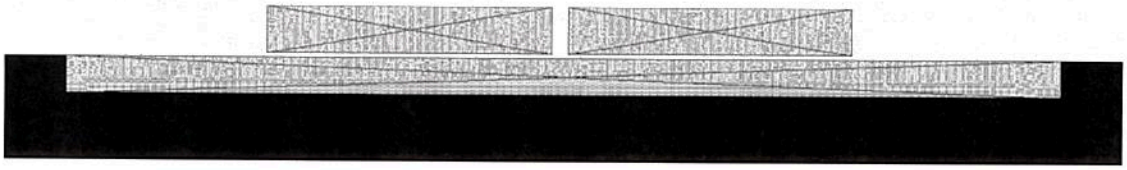


"Unfortunately, the legislation . . . will lead to uncertainty about the state's continued support of developing advanced biofuels and put future partnerships at risk," BIO told the governor.

Because of the federal Renewable Fuel Standard, repealing the state standard in Florida will likely do little to change the makeup of gasoline sold in the state. However, the Florida Biofuels and Bioenergy Association says killing the state mandate sends a chilling message to the businesses who collectively invested $1 billion in ethanol projects under construction in Florida and generated nearly 1,000 high skill jobs.

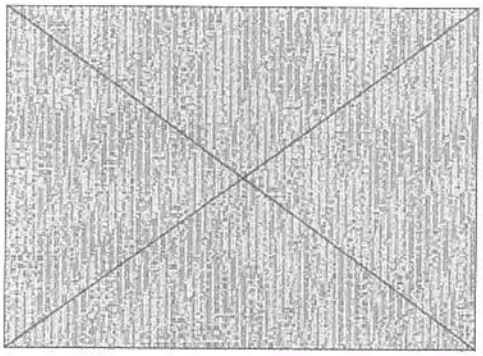
Bob Dinneen, president and CEO of the Renewable Fuels Association, and Tom Buis, CEO of Growth Energy, said in a joint statement that the Florida legislative vote "was a pyrrhic victory for ethanol detractors. It substantively changes nothing because the state mandate was redundant. The federal Renewable Fuel Standard will still apply and, thankfully for consumers who will continue to see savings at the pump, ethanol and other renewable fuels will be sold in Florida.

"All this bill has done," the two ethanol leaders said, "is put politics and oil industry profits ahead of economic opportunity and jobs in the state. The only result of this legislation will be a loss of jobs and economic opportunity in Florida. Florida has made it clear - biofuels and the valuable jobs that are created in the renewable fuels industry are no longer welcome in Florida."

Murkowski Cites Support for Tax Change Benefiting Renewable Energy Projects

The top Republican on the Senate Energy Committee said there is bipartisan support to push through a proposed change to the tax code that would give renewable energy projects access to a decades-old tax advantage now available only to investors in fossil fuel-based energy projects.

A master limited partnership (MLP) is a business structure that is taxed as a


partnership, but whose ownership interests are traded like corporate stock on a market. By statute, MLPs have only been available to investors in energy portfolios for oil, natural gas, coal extraction, and pipeline projects, which get access to capital at a lower cost and are more liquid than traditional financing approaches to energy projects, making them highly effective at attracting private investment.

Speaking at an event in New York, Murkowski said members from both sides of the aisle in both the House and the Senate support widening the MLP program to renewable energy companies.

Fellow Senate Energy Committee member Chris Coons (D-DE), along with Sens. Jerry Moran (R-KS), Debbie Stabenow (D-MI) and Murkowski (R-Alaska) introduced the Master Limited Partnership Parity Act Wednesday.

Coons introduced a similar measure in the last Congress, but it went nowhere. Murkowski's backing is thought to be a major step forward for the legislation.

The legislation "levels the playing field to help clean and renewable energy projects compete fairly with traditional energy projects," Coons said in a statement issued by his office. "This market-driven solution supports the all-of-the-above energy strategy we need to power our country for generations to come."

Coons' bill introduced in 2011 had the endorsement of the American Wind Energy Association, Solar Energy Industries Association, Biomass Power Association, Biotechnology Industry Organization, American Council on Renewable Energy, Natural Resources Defense Council, Advanced Biofuels Association and the Advanced Ethanol

Council, among others.

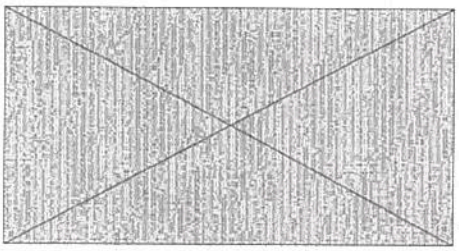
A report issued by the Democratic group Third Way and the Maguire Energy Institute at Southern Methodist University supports the partnership structure for renewable projects, noting a significant portion of the government's tax credits are ending up in the hands of financiers, rather than energy companies. Most renewable energy developers have to go to the tax equity market to get loans and funding from large investors because they don't owe enough in taxes to take advantage of the credits.

The partnership structure would make renewable energy firms less reliant on tax equity and "could attract capital to the sector, reduce the risk of investments, impose some market discipline on the

players, and offer a way to grow a sector of the economy that will be important in meeting America's future energy needs," the report says.

DOE Announces Projects to Develop Advanced Drop-in Biofuels

The Energy Department this week announced nearly $18 million in four pilot-scale biorefineries that officials say will test renewable biofuels as a domestic alternative to power cars, trucks, and planes, and that also meet military specifications for jet fuel and shipboard diesel.



The biorefineries chosen for funding will be in in California, Iowa, and Washington, and will use a variety of non-food biomass feedstocks, waste-based materials, and algae in innovative conversion processes to produce biofuels that meet military specifications for jet fuel and diesel.

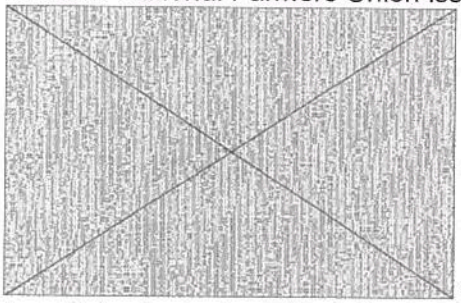
The projects selected for funding include Frontline Bioenergy of Ames, IA, which will use a new pilot-scale reactor and new gas conditioning processes to produce biofuel from woody biomass, municipal solid waste, and refuse; and Cobalt Technologies of Mountain View, CA, which will operate a pilot-scale integrated biorefinery to convert switchgrass to bio-jet fuel.

Also selected was Mercurius Biorefining, of Ferndale, WA, which will build and operate a pilot plant that uses a process that converts cellulosic biomass into bio-jet fuel and other chemicals; and BioProcess Algae, of Shenandoah, Iowa, which will evaluate an algal growth platform to produce hydrocarbon fuels meeting military specifications using renewable carbon dioxide, lignocellulosic sugars, and waste heat.

DOE officials say the projects will demonstrate technologies to cost-effectively convert biomass into advanced drop-in biofuels and assist these organizations to scale up the processes to commercial levels. Recipients are required to contribute a minimum of 50 percent in matching funds for the projects.

European Biofuel Industry Challenges Indirect Land Use Change Proposal

The European biofuel industry is voicing strong concerns over proposed amendments to the EU's renewable energy policy that could make distinctions among biofuels based on indirect land use change (ILUC).

Britain's National Farmers Union issued a statement this week saying the proposal  will damage farmer confidence and reduce incentives to produce food, feed and fuel.

Some studies of ILUC say growing crops for energy displaces agricultural production, forcing farmers to clear forests, grasslands, and wetlands for food production. When cleared, the land releases high carbon stores into the atmosphere, a development that outweighs the carbon savings that result from the fuel. Scientists remain divided over the legitimacy of ILUC factors, and the biofuel industry says improved productivity and greater production of by-products used as animal feed reduces the industry's impact on land.

A proposal to add ILUC as a consideration last fall was dropped. But a draft opinion issued last week by Corinne Lepage, a member of the European Parliament's Environment Committee, calls for reducing the market share for biofuels in Europe by introducing ILUC factors on biofuel production and tightening the cap proposed by the European Commission to 4.27 percent, down from 5 percent, for biodiesel from oil crops.

The Lepage opinion will be a significant talking point as the parliament begins debate on the contribution biofuels will be allowed to the EU's Renewable Energy Directive targets. The standard currently requires member countries to generate at least 10 percent of their transport fuels from renewable resources.

Biofuel advocates say that from all of the international land use modeling that has provided a wide range of results, the EU Commission has chosen one modeling result that is flawed and biased against biodiesel.

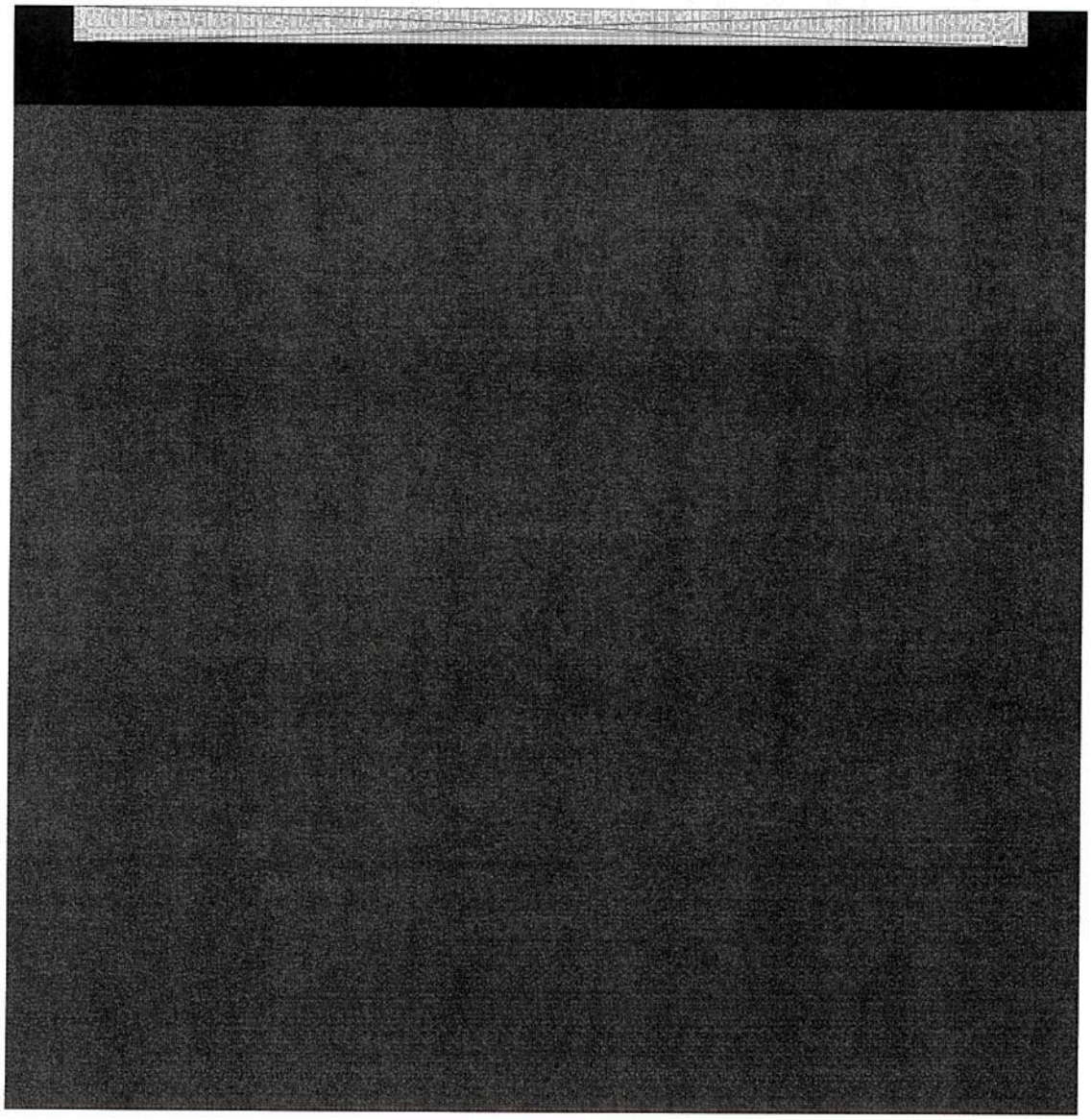
Brett Askew, a member of the NFU's Crop Board, said "the Lepage proposal could reduce by one-third the cropped area of EU and UK oilseed rape, while also eliminating an important rotational crop on UK wheat yields.

"It is clear Ms Lepage has failed to consider the severe implications of her opinion on productivity and biodiversity on-farm," Askew said. "Picking winners, as she has done in proposing a cap on biodiesel production, fails to reflect the interdependence of these feedstocks on-farm."

Biofuel advocates appear to be getting some help from the European Parliament's

Industry Committee (ITRE), which has formulated its own draft opinion that contends commission's proposals to account for carbon emissions from ILUC in the biofuels industry are based on unsound science.

Clare Wenner, with Europe's Renewable Energy Association, lauded the ITRE paper, adding that the commission's proposal is also based on "emotive NGO campaigning on food prices rather than real world facts and data. In their current form, these proposals risk jeopardizing billions of pounds of investment and the hundreds of thousands of jobs that go with that across the whole supply chain."



Forward this email

To: Christopher Hessler[CHessler@ajw-inc.com]
From: Hengst, Benjamin
Sent: Tue 7/2/2013 8:58:17 PM
Subject: RFS

Chris – did you by any chance ever put out anything regarding RFS, RIN prices, and consumer impacts? Thanks, Ben

To: Geoff Cooper[GCooper@ethanolrfa.org]; Camobreco, Vincent[Camobreco.Vincent@epa.gov]; Larson, Robert[larson.robert@epa.gov]
Cc: Lie, Sharyn[Lie.Sharyn@epa.gov]
From: Hengst, Benjamin
Sent: Fri 8/9/2013 8:22:12 PM
Subject: RE: EWG testimony regarding EPA RFS2 RIA GHG analysis for corn ethanol

Thanks, Geoff. We are discussing this internally. We've heard statements like that of EWG's as well. Ben

From: Geoff Cooper [mailto:GCooper@ethanolrfa.org]
Sent: Monday, August 05, 2013 1:26 PM
To: Hengst, Benjamin; Camobreco, Vincent; Larson, Robert
Subject: EWG testimony regarding EPA RFS2 RIA GHG analysis for corn ethanol

Gentlemen,

The Environmental Working Group recently provided testimony to the House Energy & Commerce Committee suggesting that the RFS has actually led to increased GHG emissions, "according to EPA's own data." The testimony is attached. The key statement from EWG is:

• "…the Environmental Protection Agency's own analysis has since shown that the lifecycle greenhouse gas emissions of corn ethanol **were** higher than gasoline last year (2012) and **will be** higher in 2017. All but three corn ethanol production pathways **increased** emissions in 2012, and only nine corn ethanol production pathways are expected to meet greenhouse gas reduction standards for corn ethanol in 2017."

These statements are made in a "matter of fact" manner that suggests there is actual empirical data supporting these claims. I am aware that EPA's original analysis for the RIA showed that some sources of corn ethanol would incur a carbon debt that would take years to pay off due to the significant upfront *hypothetical* ILUC emissions assigned through your FASOM/FAPRI/Winrock modeling framework. EWG's testimony appears to be characterizing EPA's 2012-era estimate from your 2009/2010 hypothetical scenario analysis as ACTUAL emissions that were somehow empirically measured or quantified in 2012. Yet, I am not aware that EPA has attempted to measure or estimate, based on empirical evidence, what the actual GHG emissions from corn ethanol and use were in 2012. Has the Agency done such an analysis estimating **actual** GHG impacts of corn ethanol in 2012 or any other year retrospectively?

In any case, this statement from EWG is obviously causing much concern on the Hill. We've heard from several Congressional staff who are asking for an explanation. This is precisely why Bob Dinneen and I suggested to the Agency last fall that a statement from EPA regarding the latest available science on ILUC and the (non)occurrence of land use changes due to RFS in the Amazon would be helpful for context. Some are using your RIA analysis as an indication or "proof" of "what *is* happening because of the RFS," when in fact it is just a highly uncertain, hypothetical scenario analysis based on a set of debatable assumptions and model inputs. We aren't necessarily asking that the Agency completely redo its corn ethanol modeling analysis; rather, we are simply asking that EPA help contextualize what its RIA results do and don't mean, and speak to the advances in the science of LCA/ILUC analysis that have occurred since you published the RIA that may render the RIA estimates invalid. EPA pledged to periodically update its LCA for all biofuels based on developments in the science; yet, we haven't seen any action to revisit—even qualitatively—the original pathways developed for RFS2. Thanks for your time.

Best regards,

Geoff

From: Geoff Cooper
Sent: Tuesday, April 30, 2013 3:02 PM
To: Benjamin Hengst (Hengst.Benjamin@epamail.epa.gov); Camobreco.Vincent@epa.gov; larson.robert@epa.gov
Subject: New ethanol technology/energy use survey paper

Ben, Vince and Bob,

Good afternoon. I just wanted to pass along a new paper by Dr. Steffen Mueller that presents the results of a recent technology survey of the dry mill ethanol industry. I think you will find the results interesting. Specifically, the report found average thermal energy use has been reduced another 9% over the 2008 survey numbers.

	2012 Corn Ethanol	2008 Corn Ethan
Yield (anhydrous/undenatured, gallon/bushel)	2.82	2.78
Thermal Energy (Btu/gallon, LHV)	23,862	26,206
Electricity Use (kWh/gallon)	0.75	0.73
DDG Yield (dry basis) including corn oil (lbs/bu)	15.73	15.81
Corn Oil Separated (lbs/bushel)	0.53	0.11
Water Use (gallon/gallon)	2.70	2.72

Also, I'm not sure if you have been following the House Energy & Commerce Committee's process to examine various aspects of the RFS program (likely in preparation for summer hearings on the RFS). The Committee is releasing a series of white papers on various RFS-related issues; each white paper asks a series of questions to which stakeholders are invited to respond. We are told one of the upcoming white papers will focus on ILUC and lifecycle GHG impacts, and that one of the questions may relate to whether or not the RFS is actually doing anything to reduce GHG emissions today, given EPA's current assessments of lifecycle GHGs for various feedstock/biofuel pathways.

Best regards,

Geoff

Geoff Cooper

Vice President, Research & Analysis

Renewable Fuels Association

16024 Manchester Road, Suite 223

Ellisville, MO 63011

O: 636.594.2284

C: 636.399.4928

From: Geoff Cooper
Sent: Tuesday, December 18, 2012 4:30 PM
To: Benjamin Hengst (Hengst.Benjamin@epamail.epa.gov); Camobreco.Vincent@epamail.epa.gov; Larson.Robert@epamail.epa.gov
Subject: FW: New ethanol LCA paper

Ben, Vince, Bob,

Thanks again for the chance to visit last Friday about ethanol lifecycle analysis. I just received the attached paper by Michael Wang's group at Argonne. It further revises and updates the corn, sugar, and cellulosic ethanol results from his 2011 paper with Purdue. The results:

Lifecycle GHG reductions relative to petroleum gasoline, including land use change emissions

	Range	*Average*
Corn ethanol	19-48%	34%
Sugarcane ethanol	40-62%	51%
Corn stover ethanol	90-103%	96%
Switchgrass ethanol	77-97%	88%
Miscanthus ethanol	101-115%	108%

We think these results further underscore the need for EPA to affirm that average corn ethanol is meaningfully reducing GHG emissions relative to gasoline *today*.

Thanks again for your time and consideration and Happy Holidays.

Regards,

Geoff

	2012 Corn Ethanol	2008 Corn Ethanol
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To: Hengst, Benjamin[Hengst.Benjamin@epa.gov]
From: 25x'25
Sent: Fri 3/22/2013 3:58:59 PM
Subject: Weekly REsource for March 22, 2013

Having trouble viewing this email? Click here

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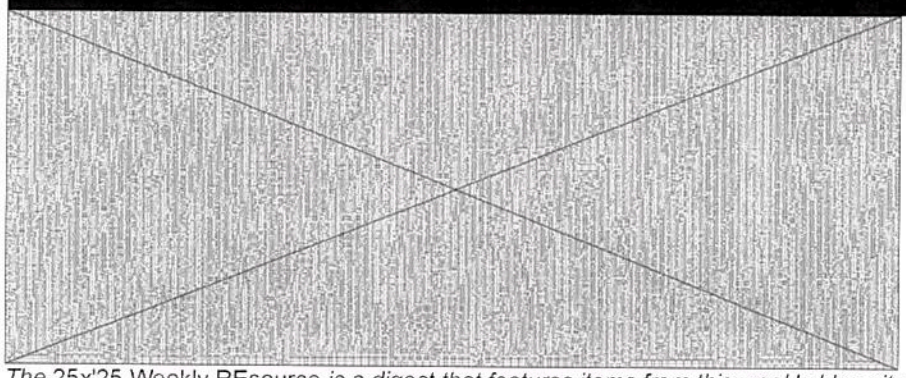

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March 1, 2013

Our Featured Blog

News of Note

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Upcoming Events

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Our Featured Blogs

Study Shows Carbon Sequestration from Corn Production Runs Deep

The ethanol industry has some good news to share. And it comes in an arena where the domestically produced biofuel has often been challenged - carbon sequestration and the

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News of Note

life-cycle assessment of ethanol made from corn. A study published by researchers associated with USDA's Agricultural Research Service uses soil samples taken continuously in Nebraska over the past decade that show growth in carbon sequestration greater than previously reported and at greater depths. Retaining carbon in the soil offers a wide array of benefits. It offers food for microbes, enhances air and water movement, offers holding areas for plant nutrients, reduces erosion and reduces the compaction of soil. Read more...

House Energy Committee Issues White Paper to Launch RFS Debate

The House Energy and Commerce Committee this week released its first in a series of white papers that the committee leaders say will examine a number of issues examining the federal Renewable Fuels Standard (RFS).

The Bayou State Will Benefit from a Beefed-up Biofuels Sector

Chairman Fred Upton (R-MI) and ranking member Henry A. Waxman (D-CA) said in a statement that the white paper represents the launch of a bipartisan review of the RFS and issues "emerging with the current system," and offers an opportunity to solicit input from interested stakeholders.

The following guest blog from Dr. Mike Strain, Commissioner of the Louisiana Department of Agriculture and Forestry since 2007, underscores the value of biofuel development at the state level.

Louisiana has been a national leader in energy for generations. Our state's vast natural resources - including crude oil and natural gas - help power a state economy that is outperforming the national average in terms of unemployment rates. However, many do not realize that Louisiana's strong agriculture and forestry industries have also primed

nal leader in new forms of energy: like advanced biofuels. Our state has otential to produce 813.5 million gallons of advanced biofuels each year. is a win-win - it benefits our rural communities by providing economic e diversifying Louisiana's economy so that it can continue to grow and

"It has been more than five years since the RFS was last revised, and we now have a wealth of actual implementation experience with it," the white paper states. "In some respects, the RFS has unfolded as expected, but in others it has not. Several implementation challenges have emerged that call into [illegible] consideration prior to passage of the Energy Independence and Security Act of 2007. Furthermore, the overall energy landscape has changed since 2007 in [illegible] stake reassessment of the RFS."

[illegible] To ensure that Louisiana remains a national energy leader, as our country's energy needs evolve, our elected officials need to support the development of a comprehensive national energy strategy that continues to promote the use of advanced biofuels. In addition to providing economic opportunity for our state, this policy helps enhance our energy security, environmental sustainability and fuel diversity. Read more...

The white paper addresses the "blend wall, the point at which adding the required volume of ethanol to gasoline supplies would result in ethanol blends that exceed 10 percent, which is the maximum ethanol content approved for sale for use in all vehicles." (EPA has approved the use of E15 in cars and light trucks built since 2001.)

"As gasoline demand has declined in recent years, and ethanol targets have continued to rise, the blend wall is approaching much faster than anticipated," the paper states. "The required volumes of ethanol as set by the RFS must now be added to a smaller-than-expected pool of gasoline, and many experts predict the 10 percent blend wall may be reached as soon as this year. While blends containing up to 10 percent ethanol (E-

Headlines of Note for the Week Ending March 22, 2013

10) have long been used refiners ... to start producing ... to stay in compliance."

***News of interest to our 25x'25 Partners and advocates for a clean energy future*:**

The approaching blend wall raises a number of issues for producers, refiners, auto manufacturers, and fuel retailers, the committee said in a statement issued with the white paper.

Google Explains Why The Future of Energy is Green
Obama Seeks to Use Oil and Gas Money to Develop Alternative Fuels Cars
Renewable Energy Standard Successfully Defended
Researchers Building Stronger, Greener Concrete With Biofuel Byproducts
Senate Votes to Maintain Military Biofuel Spending
Solar Power to Hit Cost Parity Next Year
Solar Will Be Second-Biggest Source of U.S. Power Added in 2013
Upton, Waxman Launch Debate on Biofuels Mandate
World's Largest Solar Plant Goes Online

In addition to the white paper, the committee has posted a number of questions and asked stakeholders to submit responses to those questions by April 5.

Upcoming Events

To access a copy of the white paper and read a list of the questions for stakeholder comment, along with instructions on how to respond, click HERE.

Other events of interest to 25x'25 partners and other renewable energy stakeholders can be found by clicking here.

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RFA Seeks Multi-Agency Investigation of Oil Industry in E15 Dispute

American marketplace and, not coincidentally, bolster their campaign to repeal the RFS altogether."

The station, a ConocoPhillips franchisee, has a lengthy history of offering E85 (85-percent ethanol blend), using a blender pump that mixed the formula from two tanks, one carrying gasoline and the other straight ethanol. But the association says that because only certain vehicles can use E85, the oil industry viewed the station's sale of the high-ethanol blend as a "gimmick."

However, when Zarco 66 began offering E15, which can be used in any light-duty vehicle manufactured over the last decade, "the oil industry suddenly changed its tune."

The association charged that ConocoPhillips quickly threatened to terminate Zarco 66's franchise agreement and charge Zarco 66 hundreds of thousands of dollars in penalties unless Zarco 66 started offering "premium" gasoline - a fuel that would replace the ethanol housed in one of Zarco 66's fueling tanks, and a gasoline that is likely to result in far fewer sales than the ethanol blends that would be available if Zarco 66 maintained the current ethanol contents.

"For franchisees like Zarco 66, the message that the oil industry is delivering is loud and clear: Stop selling renewable fuels, or face the consequences," the RFA letter alleged."

The trade group says the oil industry is enforcing the unlawful act of "tying" agreements which violate Section 1 of the Sherman Antitrust Act.

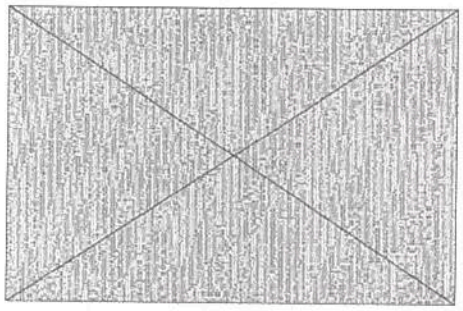
"Here, the oil industry is forcing fuel stations to purchase and carry a product that they otherwise do not wish to carry (premium gasoline) as a condition for purchasing and carrying the tying product (regular gasoline)," the letter states. "Because franchisees are locked into franchise agreements (and such a lock-in effect is magnified when, as in the case of Zarco 66, the oil franchisor changes the terms of the relationship midstream), an oil franchisor holds appreciable economic power over the franchisee, which it is using to force franchisees to purchase premium fuel that they might not otherwise wish to carry."

The letter also alleges oil industry violations of the Gasohol Competition Act of 1980, which makes it unlawful to "unreasonably discriminate against or unreasonably limit the sale, resale, or transfer of gasohol or other synthetic motor fuel of equivalent usability."

The letter also charges the oil industry with violating the Petroleum Marketing Practices Act and ignoring the intent of the Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007, which detail the requirements of the RFS.

Clean Fuels Coalition Offers Fact Sheet on RIN Controversy

With the rhetoric - and the stakes - rising in the conflict over the rising costs of ethanol Renewable Identification Numbers, or RINs, the non-profit Clean Fuels Development Coalition has offered a fact sheet that gives policy makers and stakeholders a clearer picture of the issue.



RINs represent a system offered by EPA that allows parties obligated to meet the federal Renewable Fuel Standard (RFS), which was established under the Energy Policy Act of 2005 and later modified through the Energy Independence and Security Act of 2007.

The RFS requires that specific annual volumes of renewable fuel - ethanol, cellulosic biofuel, biomass-based diesel and advanced biofuels - be used as transportation fuel, home heating oil and jet fuel each year, reaching 36 billion gallons of the nation's fuel supply in 2022.

A key component of the RFS, the coalition points out in the fact sheet, is the flexibility

afforded obligated parties - petroleum refiners and importers - as to how they meet their annual renewable fuel obligation. The petroleum industry can do so by using actual "wet" gallons or through credits - RINs - that can be purchased from other obligated parties. RINs are based on the renewable fuels generated by producers and importers, and can be traded, carried over to the following year, and used by obligated parties to show compliance with their volume obligations.

This flexibility was requested by the petroleum industry so they would have the option of using an actual gallon or over-complying in a certain market and applying that "extra credit" to another area of the country. As for the marketability of the RINs, if for example an obligated party is required to use 1,000 gallons and used 1,200 then the first thousand RINs are "retired" as they are turned in to demonstrate compliance. The remaining 200 credits are available to be traded, sold, or held for another time.

Until 2013, consumers used more ethanol than was required under the RFS, so there was always an excess of RINs, the coalition notes, making their monetary value minimal an intended design of the program to make compliance easy rather than to necessarily generate more income for fuel producers.

A RIN attains market and financial value when a refiner or obligated party cannot purchase the required biofuel and has to meet his obligation with a RIN. However, there is more ethanol being produced and imported into the United States today than is required by law. Nor does the obligation exceed the ability to place biofuels in the market and drive up the RIN price, because 90 percent of the fuel in the US continues to be gasoline which could be blended with ethanol.

The coalition asserts that the petroleum industry simply chooses not to blend above 10-percent ethanol volume (E10) in gasoline, despite EPA approval of 15-percent ethanol blend (E15) for cars and light trucks built in 2001 and later. E15, the coalition says, is a legal fuel approved by EPA for approximately 75 percent of the cars on the road today and could easily be offered to consumers. In addition, there are 14 million flex fuel vehicles (FFVs) on the road today that can use up to 85-percent ethanol.

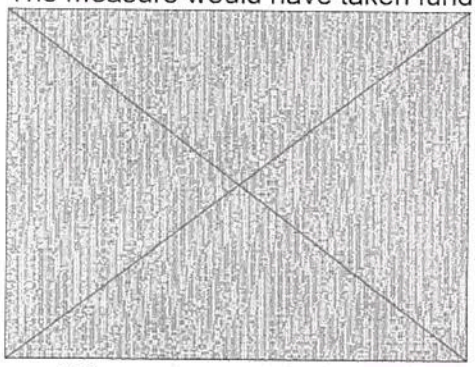
"Even a modest increase in market penetration of E85 would absorb more ethanol than is required under the entire RFS program, thus relegating RINs to worthless status," the fact sheet states.

Citing high petroleum industry margins and a fear of loss of market share, the coalition alleges that the oil industry "has elected not to blend ethanol in volumes above 10 percent. Instead, the oil industry has elected to meet the RFS requirement with RINs. This decision immediately raised the price of RINs. Even as an RIN has escalated from less than 10 cents to nearly $1, obligated parties can devalue the price of ethanol by amassing RINs at this price and thus control the market."

The coalition notes that ethanol is available nationwide at an average of 70 cents per gallon less than gasoline at the wholesale level - a price differential used by the petroleum industry for discretionary ethanol blending to take advantage of the high octane value of ethanol. Yet today, "oil companies are not marketing ethanol on a discretionary basis in E15 or other ethanol blends despite the high potential profit," choosing instead to contrive "a self-inflicted crisis" aimed at discrediting the RFS.

Senate Rejects Effort to End Military Biofuels Program

An amendment that would have stripped $60 million in spending on biofuel by the Defense Department was voted down by the Senate this week, 40-59. Sen. Pat Toomey (R-PA) introduced the amendment last week.

The measure would have taken funding allocated to the DOD's biofuel program that  supports advanced drop-in biofuel production and would have reassigned it to support military operations and maintenance expenses.

Sen. Mark Udall (D-Colo.), a leading advocate of the U.S. military's pursuit of alternative

transportation fuels, said the Defense Department "is on the cutting edge technologically, but much of our fighting capability relies on foreign fossil fuels and decades-old power systems. That dependence has very real human and economic costs."

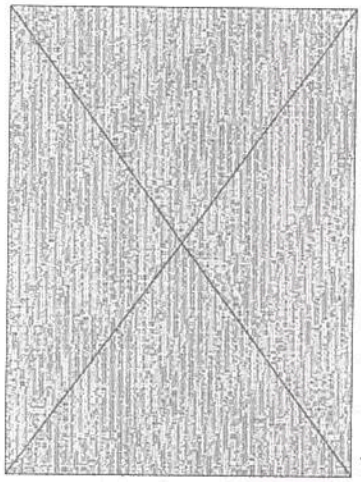
Michael McAdams, the president of the Advanced Biofuels Association, said the Senate vote "endorsed the importance of advanced biofuels in securing our energy future and creating jobs and economic growth."

Novozymes North America President Adam Monroe, cited the role advanced biofuels play in national energy security in commending the Senate's vote.

"Every day we import oil, we're putting our troops, families and country at needless risk. We can reduce that risk with a secure energy supply, including renewable fuels," Monroe said. "Imagine how much safer our troops and country will be when we're making more fuel at home, instead of getting it from abroad. Our military understands its needs. Renewables are domestically-made and being used now. Let's follow today's bipartisan example in the Senate and let our military move forward getting its energy- and America another way to improve its security."

Obama Proposes Energy Security Trust to Drive Alternative Fuel Research

President Obama late last week highlighted the now familiar "all-of-the-above" approach to American energy, proposing the establishment of an Energy Security Trust that would invest revenue from offshore oil and gas development in research to help transition cars and trucks from reliance on oil.



The president's plan calls for the fund to channel some $2 billion over 10 years for research that would focus on a range of technologies, including advanced biofuels, electric vehicles (EV), advanced batteries and cars that run on natural gas.

The White House says the investments will continue to reduce U.S. dependence on oil, support job creation, increase energy security, and save families money at the pump, while also cutting harmful greenhouse gas emissions.

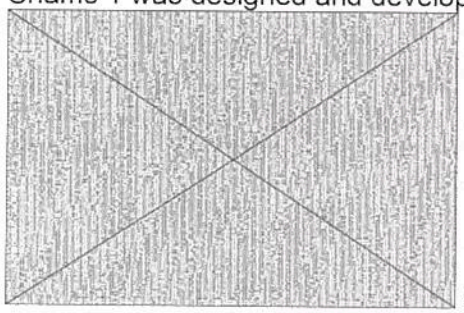
"In my State of the Union Address, I called on Congress to set up an Energy Security Trust to fund research into new technologies," Obama said during remarks last Friday at the Argonne National Laboratories. "Much of our energy is drawn from lands and waters that we, the public, own together. So I'm proposing that we take some of our oil and gas revenues from public lands and put it towards research that will benefit the public, so that we can support American ingenuity without adding a dime to our deficit."

Elsewhere, the DOE released a "Transportation Energy Future" study that finds the United States has the potential to reduce petroleum use and greenhouse gas (GHG) emissions in the transportation sector by more than 80 percent by 2050.

While the study "does not project that all liquid fuels will be eliminated from the future transportation sector," it does assert that if the United States hits its 2050 fuel efficiency, hydrogen fuel and electrification goals, "demand can be sufficiently reduced so that biomass can meet all liquid fuel needs."

World's Largest Concentrated Solar Power Plant Goes Online

Shams 1, the largest concentrated solar power plant (CSP) in the world, has gone online in the western region of Abu Dhabi. The 100-megawatt, grid-connected power plant will generate clean energy to power 20,000 homes in the United Arab Emirates, officials say.

Shams 1 was designed and developed by Shams Power Company, a joint venture  between Masdar (60 percent), Total (20 percent) and Abengoa Solar (20 percent).

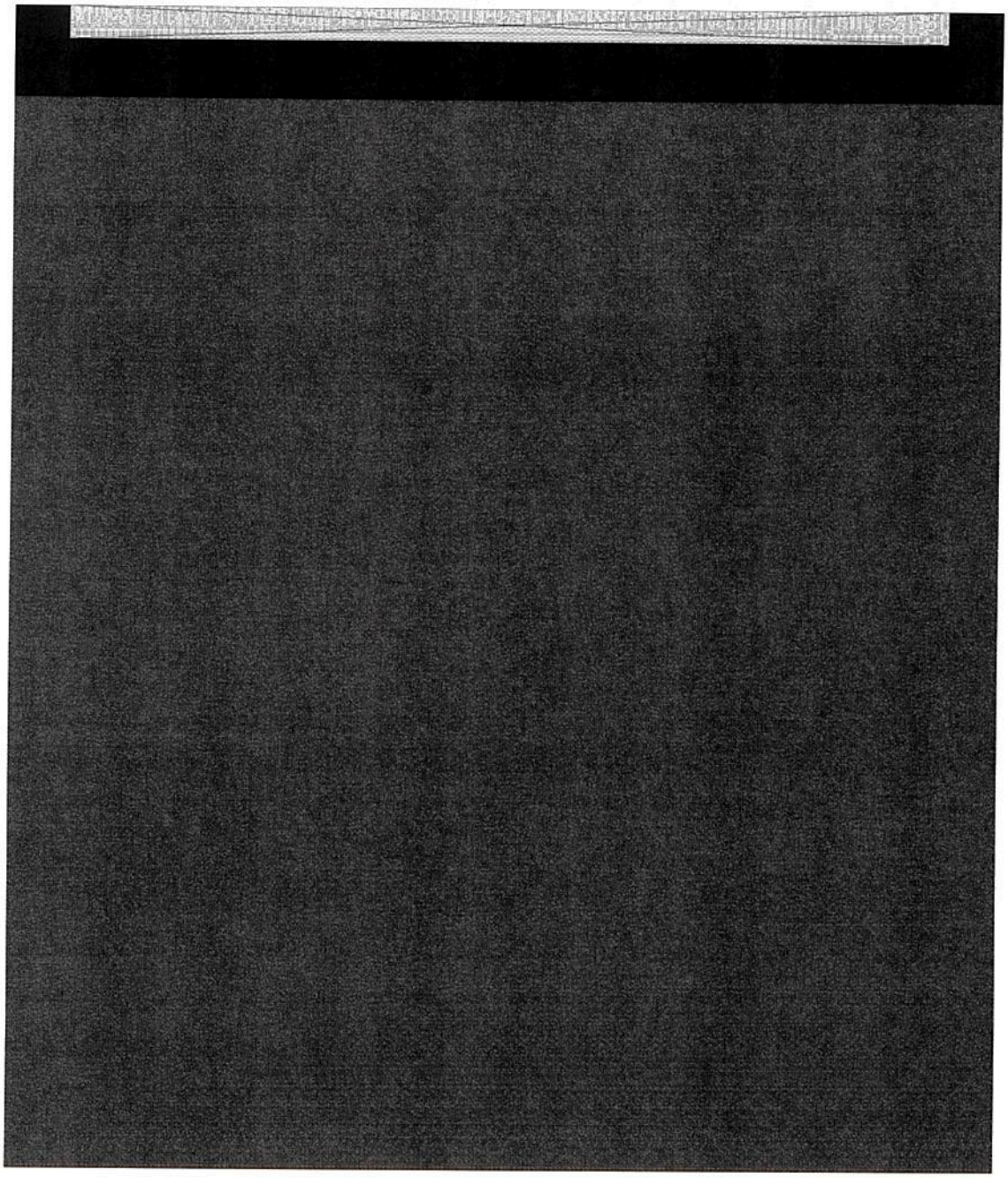
With the addition of Shams 1, Masdar's renewable energy portfolio accounts for almost 68 percent of the Gulf's renewable energy capacity and close to 10 percent of the world's installed CSP capacity.

This has the capability of displacing approximately 175,000 tons of carbon dioxide per year, an equivalent to planting 1.5 million trees, or taking 15,000 cars off the road.

Covering an area of nearly 300 football fields, the project incorporates the latest in parabolic trough technology and features more than 258,000 mirrors mounted on 768 tracking parabolic trough collectors. By concentrating heat from direct sunlight onto oil-filled pipes, Shams 1 produces steam, which drives a turbine and generates electricity.

The project uses a booster heater to heat steam as it enters the turbine, dramatically boosting the cycle's efficiency. Shams 1 also features a dry-cooling system that significantly reduces water consumption - a critical advantage in the arid desert.

Santiago Seage, CEO of Abengoa Solar, said the project represents "an opportunity to integrate sustainable, clean sources of power that address energy security and climate change."



Forward this email

To: Chris Miller[cmiller@ajw-inc.com]
Cc: Stewart, Gwen[Stewart.Gwen@epa.gov]
From: Hengst, Benjamin
Sent: Fri 12/12/2014 2:03:43 PM
Subject: RE: Heavy duty

Chris, I've copied Gwen on this to help with scheduling.

Gwen: Chris Miller confirmed that this group (Tenneco/MECA) would be willing to meet here in DC next week. Can you propose a few times, either on Thursday or Friday, that would work for a 1 hour meeting with Chris? Other invitees would be myself and Bill Charmley, for now. Thanks, Ben

From: Chris Miller [mailto:cmiller@ajw-inc.com]
Sent: Thursday, December 11, 2014 5:41 PM
To: Hengst, Benjamin
Subject: Re: Heavy duty

Hi Ben – sorry to bother you with this administrivia. Tenneco/MECA were hoping to do by the end of the year (which is fast approaching). I don't know what CG's schedule is like. If he's going to be in/near OTAQ, that's probably easiest for the company. If he's going to be in DC and has availability, I can probably get them here on fairly short notice (e.g. a few days).

thanks, Chris

From: <Hengst>, Ben Hengst <Hengst.Benjamin@epa.gov>
Date: Thursday, December 11, 2014 5:36 PM
To: Christopher Miller <cmiller@ajw-inc.com>
Subject: Re: Heavy duty

Hey Chris, I can help set this up

Did you have a time frame in kind?

Hope you are well. Ben

From: Stewart, Lori

Sent: Thursday, December 11, 2014 3:38 PM

To: Chris Miller

Cc: Hengst, Benjamin; Charmley, William

Subject: RE: Heavy duty

I think Bill may be following up with Chris' scheduler but I am cc'ing Ben and Bill so they know this still needs to be scheduled with Chris and others. Thanks Chris.

From: Chris Miller [mailto:cmiller@ajw-inc.com]
Sent: Thursday, December 11, 2014 3:33 PM
To: Stewart, Lori
Subject: Re: Heavy duty

Hi again – my apologies if this is redundant, but should I be originating a new request to Chris Grundler?

thanks, Chris

From: Christopher Miller <cmiller@ajw-inc.com>
Date: Wednesday, December 3, 2014 6:36 PM
To: "Stewart, Lori" <Stewart.Lori@epa.gov>
Subject: Re: Heavy duty

Thanks Lori. Bill and I talked this afternoon. Sounds like meeting with Chris G first makes sense.

I should have noted that MECA and my MECA subset (AESI) would also likely be represented in the meeting.

From: <Stewart>, "Stewart, Lori" <Stewart.Lori@epa.gov>
Date: Wednesday, December 3, 2014 5:49 PM
To: Christopher Miller <cmiller@ajw-inc.com>
Subject: RE: Heavy duty

Chris, Bill Charmley plans to check in with you on this, if he hasn't already. We generally suggest that companies meet first with ODs. Bill plans to circle back with me after you and he talk. Thanks and I hope all is well.

-----Original Message-----

From: Chris Miller [mailto:cmiller@ajw-inc.com]

Sent: Monday, December 01, 2014 3:28 PM

To: Stewart, Lori

Subject: Heavy duty

Hi Lori - happy post thanksgiving and end of the 111d comment period ;-) !

Could I bring in a client (Tenneco) to talk to Janet about heavy duty phase 2? They very much want to be certain that she's heard their views/perspective.

Thanks, Chris

Ex. 6

Sent from my iPad

To: Chris Miller[cmiller@ajw-inc.com]
From: Hengst, Benjamin
Sent: Thur 12/11/2014 10:36:03 PM
Subject: Re: Heavy duty

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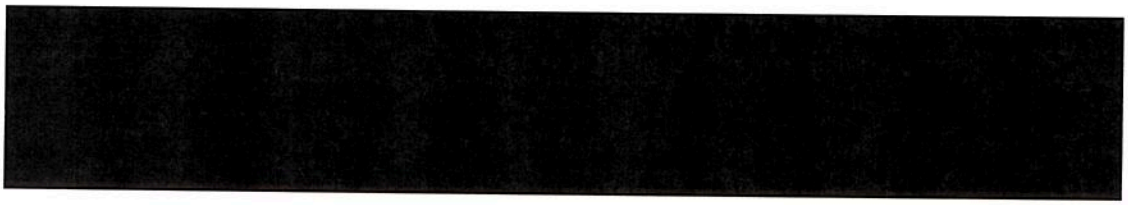
Hope you are well. Ben



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Could I bring in a client (Tenneco) to talk to Janet about heavy duty phase 2? They very much want to be certain that she's heard their views/perspective.

Thanks, Chris

Ex. 6

Sent from my iPad

To: Chris Miller[cmiller@ajw-inc.com]
From: Hengst, Benjamin
Sent: Thur 8/7/2014 8:34:27 PM
Subject: RE: carbon sequestered in cellulosic biofuel pathway

Chris—just tried calling. Give me a call at 202 564 1495. Thanks

From: Chris Miller [mailto:cmiller@ajw-inc.com]
Sent: Thursday, August 07, 2014 9:56 AM
To: Hengst, Benjamin
Subject: Re: carbon sequestered in cellulosic biofuel pathway

That would be perfect. Shall I call you or do you want to call my cell ? Ex. 6

Thanks

Sent from my iPad

On Aug 7, 2014, at 9:36 AM, "Hengst, Benjamin" <Hengst.Benjamin@epa.gov> wrote:

Sure—how about 4:30 today?

From: Chris Miller [mailto:cmiller@ajw-inc.com]
Sent: Wednesday, August 06, 2014 5:40 PM
To: Hengst, Benjamin
Subject: carbon sequestered in cellulosic biofuel pathway

Hi Ben – Do you have time for a couple of dumb questions on the topic above? Or if not or you'd prefer to delegate, should I pester Paul Machiele or someone else of your designation? Hessler handed me some researching duties on his way out on vacation.

thanks, Chris

Christopher Miller, Partner

AJW, Inc.

202-296-8086

202-257-8691 cell

cmiller@ajw-inc.com

To: Chris Miller[cmiller@ajw-inc.com]
From: Hengst, Benjamin
Sent: Thur 8/7/2014 2:03:31 PM
Subject: Re: carbon sequestered in cellulosic biofuel pathway

I can call your cell.

[redacted]

That would be perfect. Shall I call you or do you want to call my cell [redacted] ? Ex. 6

Thanks

Sent from my iPad

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Sent: Wednesday, August 06, 2014 5:40 PM
To: Hengst, Benjamin
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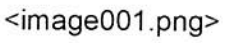
Christopher Miller, Partner

AJW, Inc.

202-296-8086

202-257-8691 cell

cmiller@ajw-inc.com



To: Hengst, Benjamin[Hengst.Benjamin@epa.gov]
From: Anne Steckel
Sent: Thur 5/7/2015 8:27:48 PM
Subject: touching base

Ben,

Sorry I missed your call. Please call me whenever at Ex. 6

Thanks,

Anne

Anne Steckel

Vice President, Federal Affairs

National Biodiesel Board

1331 Pennsylvania Ave. NW #505

Washington, DC 20004

O: 202.737.8801

C: 202.422.4002

To: Hengst, Benjamin[Hengst.Benjamin@epa.gov]
From: Bromer, Alexandra Magill (Perkins Coie)
Sent: Mon 5/4/2015 1:58:18 PM
Subject: Automatic reply: You at the office today?

I will be out of the office the morning of Monday, May 4th. I will return your message as soon as possible.

If you require immediate assistance, please contact Jill Proulx at Thank you. Thank Ex. 6 you.

To: Hengst, Benjamin[Hengst.Benjamin@epa.gov]
From: Lindsay Fitzgerald
Sent: Tue 4/14/2015 6:52:37 PM
Subject: Left you a message today. Call when you have a moment.

EV. 6

Sent from my iPhone